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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,193	11/19/2001	Manuel Barbosa	1356-039 (9908)	8121

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DOBRUSIN & THENNISCH PC  
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PONTIAC, MI 48342

EXAMINER
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NGUYEN, XUAN LANT

ART UNIT	PAPER NUMBER
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3683

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/05/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/988,193	<b>Applicant(s)</b> BARBOSA, MANUEL	
	<b>Examiner</b> Lan Nguyen	<b>Art Unit</b> 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 January 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 25-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 25-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the claimed feature of the abutment plate being in the interior of the drum brake assembly as claimed in claim 25 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 25-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The claimed feature of the abutment plate being in the interior of the drum brake assembly as claimed in claim 25 was not disclosed in the original disclosure.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 31 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 31 recites the limitation "the sides". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 25-31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al. in view of JP 63-45229, (from here on will be referred as Document '229).

Re: claim 25, Buchholz shows a lightweight two-part backing plate for a drum brake assembly, as in the present invention, the backing plate including: a shield plate 5 for supporting and shielding components of a drum brake assembly, and an abutment plate 4 attached to the shielding plate being configured to resist braking forces, the abutment plate comprising: an upper portion includes a plurality of mounting features, bolt holes 16, for mounting the abutment plate to an axle housing of a vehicle, a lower portion having a shape generally corresponding to an anchor block 8 of the drum brake assembly and configured to engage and resist braking forces from brake shoes, and an intermediate portion located between the upper and lower portion, and the width of the lower portion being less than the width of the upper portion as shown; wherein the combination of the shield plate and abutment plate reduce vibration of the drum brake assembly while providing sufficient resistant braking forces applied by the brake shoes. Buchholz lacks the shield plate having a thickness of 0.8 mm to 1.8 mm and being formed of a damped steel comprising: a first and second steel layer, the thickness of the first and second steel layer being approximately equal, and an intermediate layer located between the first and second layer, the intermediate layer being formed of viscoelastic polymer; and the abutment plate having a thickness of 3 mm to 6 mm and

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having a generally square shape and located on an interior portion of the drum brake assembly. Document '229 teaches the concept of using damped steel in the construction of a shielding plate 10 in order to further reduce noise and vibration from braking operations wherein the damped steel comprises a first and second steel layer, the thickness of the first and second steel layer being approximately equal, and an intermediate layer located between the first and second layer, the intermediate layer being formed of viscoelastic polymer in combination with an abutment plate 9 being located on an interior portion of the drum brake assembly. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Buchholz's backing plate assembly to comprise the material of damped steel as taught by Document '229, since it is proven that damped steel is excellent in dampen noise and vibration as taught by Document '229. With regards to the shape of the abutment plate and the dimensions of the abutment plate and the shield plate, these claimed features are considered to be engineering design choices wherein these choices can be selected to achieve a desired level of dampening. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Buchholz's brake assembly to comprise the abutment plate and shielding plate with certain thicknesses and shape in order to satisfy different requirements of each application to dampen the required vibration and noise.

Re: claims 26, 27, 29, 30 and 31, the thicknesses of the steel and the damped steel, and the shape of the abutment plate are considered to be engineering design

choices and would depend on the requirements of each application to dampen the required vibration and noise as mentioned above.

Re: claim 28, Buchholz shows the abutment plate includes one or more anchors 8 for resisting movement of brake shoes of the drum brake assembly.

Re: claims 33 and 34, Buchholz shows the shield plate 5 and the abutment plate 4 are formed separately, wherein the shield plate 5 is configured to support a hydraulic cylinder 9 of the drum brake assembly.

8. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buchholz et al. in view of JP 63-45229, (from here on will be referred as Document '229) and further in view of Ludke et al. (USP 5,896,958).

Buchholz's backing plate, as modified and as rejected in claim 25, lacks a mounting hole defines by the abutment plate for receiving an antilock braking sensor. Ludke teaches in figure 2 a two part backing plate comprising a shield plate 22 and an abutment plate 10 to resist the braking force wherein the abutment plate 10 defines a mounting hole for mounting an antilock braking sensor 46. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Buchholz's backing plate to comprise a hole for mounting an ABS sensor as taught by Ludke in order to provide a reliable location for an ABS sensor.

### ***Response to Arguments***

9. New grounds of rejections are presented above to meet the newly submitted claims.

***Conclusion***

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lan Nguyen whose telephone number is (571) 272-7121. The examiner can normally be reached on Monday through Friday, 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James McClellan can be reached on (571) 272-6786. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lan Nguyen  
Primary Examiner  
Art Unit 3683

*Lan Nguyen* 2/26/07